Author index

Abu-Abeid, M. *see* Pnueli, L.
Aeschbacher, Roger A., Schrott, Martin, Potrykus, Ingo and Saul, Michael W. *Isolation and molecular characterization of* PosF21, *an* Arabidopsis thaliana *gene which shows characteristics of a b-Zip class transcription factor* 303
Albersheim, Peter *see* Marfà, Victòria
Albersheim, Peter *see* Mathieu, Yves
Anuntalabhochai, S., Terryn, N., Van Montagu, M. and Inzé, D. *Molecular characterization of an* Arabidopsis thaliana *cDNA encoding a small GTP-binding protein, Rha1* 167
Arnold, Martin *see* Debener, Thomas
Arondel, Vincent *see* Hwang, Inhwan

Barbier-Brygoo, Hélène, Ephritikhine, Geneviève, Klämbt, Dieter, Maurel, Christophe, Palme, Klaus, Schell, Jeff and Guern, Jean *Perception of the auxin signal at the plasma membrane of tobacco mesophyll protoplasts* 83
Barker, David George *see* de Billy, Françoise
Bartels, Dorothea *see* Bianci, Giorgio
Bartlett, Jeremy *see* Martin, Cathie
Bianci, Giorgio, Gamba, Anna, Murelli, Carla, Salamini, Francesco and Bartels, Dorothea *Novel carbohydrate metabolism in the resurrection plant* Craterostigma plantagineum 355
de Billy, Françoise, Barker, David George, Gallusci, Philippe and Truchet, Georges *Leghaemoglobin gene transcription is triggered in a single cell layer in the indeterminate nitrogen-fixing root nodule of alfalfa* 27
Block, Annette *see* Lozoya, Edmundo
Bogorad, L. *see* Quick, W.P.
Brauer, Monika *see* Sonnewald, Uwe
Brears, Timothy, Walker, Elsbeth L. and Coruzzi, Gloria M. *A promoter sequence involved in cell-specific expression of the pea glutamine synthetase* GS3A *gene in organs of transgenic tobacco and alfalfa* 235
Burrows, Paul R. *see* Sijmons, Peter C.

Caboche, Michel *see* Faure, Jean-Denis
Caboche, Michel *see* Nussaume, Laurent
Caplan, A. *see* Claes, B.
Carpenter, Rosemary *see* Luo, Da
Claes, B., Smalle, J., Dekeyser, R., Van Montagu, M. and Caplan, A. *Organ-dependent regulation of a plant promoter isolated from rice by 'promoter-trapping' in tobacco* 15
Cnops, Gerda *see* Hwang, Inhwan
Coen, Enrico S. *see* Luo, Da
Cooper, C. *see* Knox, J.P.
Coruzzi, Gloria M. *see* Brears, Timothy
Coruzzi, Gloria M. *see* McGrath, Robert B.

D'Ovidio, Renato *see* Sheng, Jinsong
Dangl, Jeffery L. *see* Debener, Thomas
Danhoff, Linda *see* Hwang, Inhwan
Darvill, Alan *see* Marfà, Victòria
Darvill, Alan *see* Mathieu, Yves
Dawe, R. Kelly and Freeling, Michael *Cell lineage and its consequences in higher plants* 3
Dean, Caroline *see* Hwang, Inhwan
Debener, Thomas, Lehnackers, Hiltrud, Arnold, Martin and Dangl, Jeffery L. *Identification and molecular mapping of a single* Arabidopsis thaliana *locus determining resistance to a phytopathogenic* Pseudomonas syringae *isolate* 289
Dekeyser, R. *see* Claes, B.
DeWitt, Natalie D., Harper, Jeffrey F. and Sussman, Michael R. *Evidence for a plasma membrane proton pump in phloem cells of higher plants* 121
Doonan, John H. *Cycling plant cells* 129
Doyle, Sandra *see* Luo, Da
Dupree, Paul, Pwee, Keng-Hock and Gray, John C. *Expression of photosynthesis gene–promoter fusions in leaf epidermal cells of transgenic tobacco plants* 115

Eberhard, Stefan *see* Marfà, Victòria
Ellis, R. John *Chaperone function: cracking the second half of the genetic code* 9
Ephritikhine, Geneviève *see* Barbier-Brygoo, Hélène

Faure, Jean-Denis, Vincentz, Michel, Kronenberger, Jocelyne and Caboche, Michel *Co-regulated expression of nitrate and nitrite reductases* 107
Feldmann, Kenneth A. *T-DNA insertion mutagenesis in* Arabidopsis: *mutational spectrum* 71
Fichtner, K. *see* Quick, W.P.
Freeling, Michael *see* Dawe, R. Kelly

Gallusci, Philippe *see* de Billy, Françoise
Gamba, Anna *see* Bianci, Giorgio
Gibson, Sue *see* Hwang, Inhwan
Gollin, David J. *see* Marfà, Victòria
Goodman, Howard M. *see* Hwang, Inhwan
Gray, John C. *see* Dupree, Paul
Grundler, Florian M.W. *see* Sijmons, Peter C.
Guern, Jean *see* Barbier-Brygoo, Hélène
Guern, Jean *see* Mathieu, Yves

Hahlbrock, Klaus *see* Lozoya, Edmundo
Harper, Jeffrey F. *see* DeWitt, Natalie D.
Hauge, Brian M. *see* Hwang, Inhwan
Hayashi, Hiroaki *see* Walden, Richard
Heslop-Harrison, J.S. *see* Maluszynska, J.
Hiraoka, Yoshiki *see* Takahashi, Yohsuke
Hwang, Inhwan, Kohchi, Takayuki, Hauge, Brian M., Goodman, Howard M., Schmidt, Renate, Cnops, Gerda, Dean, Caroline, Gibson, Sue, Iba, Koh, Lemieux, Bertrand, Arondel, Vincent, Danhoff, Linda and Somerville, Chris *Identification and map position of YAC clones comprising one-third of the* Arabidopsis *genome* 367

Iba, Koh *see* Hwang, Inhwan
Inzé, D. *see* Anuntalabhochai, S.
Ito, Masaki, Kodama, Hiroaki and Komamine, Atsushi *Identification of a novel S-phase-specific gene during the cell cycle in synchronous cultures of* Catharanthus roseus *cells* 141

Kendrick, Richard E. and Nagatani, Akira *Phytochrome mutants* 133
Klämbt, Dieter *see* Barbier-Brygoo, Hélène
Knox, J.P., Linstead, P.J., Peart, J., Cooper, C. and Roberts, K. *Developmentally regulated epitopes of cell surface arabinogalactan proteins and their relation to root tissue pattern formation* 317
Kodama, Hiroaki *see* Ito, Masaki
Kohchi, Takayuki *see* Hwang, Inhwan
Koller, Alan *see* Mathieu, Yves
Komamine, Atsushi *see* Ito, Masaki
Kronenberger, Jocelyne *see* Faure, Jean-Denis
Kurkdjian, Armen *see* Mathieu, Yves
Kusaba, Makoto *see* Takahashi, Yohsuke

Laver, H.K., Reynolds, S.J., Moneger, F. and Leaver, C.J. *Mitochondrial genome organization and expression associated*

with cytoplasmic male sterility in sunflower (Helianthus annuus) 185
Leaver, C.J. *see* Laver, H.K.
Lehnackers, Hiltrud *see* Debener, Thomas
Lemieux, Bertrand *see* Hwang, Inhwan
Levy, Samuel, York, William S., Stuike-Prill, Rainer, Meyer, Bernd and Staehelin, L. Andrew *Simulations of the static and dynamic molecular conformations of xyloglucan. The role of the fucosylated sidechain in surface-specific sidechain folding* 195
Lifschitz, E. *see* Pnueli, L.
Linstead, P.J. *see* Knox, J.P.
Lois, Rodrigo *see* Lozoya, Edmundo
Lozoya, Edmundo, Block, Annette, Lois, Rodrigo, Hahlbrock, Klaus and Scheel, Dierk *Transcriptional repression of light-induced flavonoid synthesis by elicitor treatment of cultured parsley cells* 227
Luo, Da, Coen, Enrico S., Doyle, Sandra and Carpenter, Rosemary *Pigmentation mutants produced by transposon mutagenesis in* Antirrhinum majus 59

McGrath, Robert B. and Coruzzi, Gloria M. *A gene network controlling glutamine and asparagine biosynthesis in plants* 275
Mackay, Steve *see* Martin, Cathie
Maluszynska, J. and Heslop-Harrison, J.S. *Localization of tandemly repeated DNA sequences in* Arabidopsis thaliana 159
Marcus, Abraham *see* Ye, Zheng-Hua
Marfà, Victòria, Gollin, David J., Eberhard, Stefan, Mohnen, Debra, Darvill, Alan and Albersheim, Peter *Oligogalacturonides are able to induce flowers to form on tobacco explants* 217
Martin, Cathie, Prescott, Andy, Mackay, Steve, Bartlett, Jeremy and Vrijlandt, Eli *Control of anthocyanin biosynthesis in flowers of* Antirrhinum majus 37
Mathieu, Yves, Kurkdjian, Armen, Xia, Hua, Guern, Jean, Koller, Alan, Spiro, Mark D., O'Neill, Malcolm, Albersheim, Peter and Darvill, Alan *Membrane responses induced by oligogalacturonides in suspension-cultured tobacco cells* 333
Maurel, Christophe *see* Barbier-Brygoo, Hélène
Mehdy, Mona C. *see* Sheng, Jinsong
von Mende, Nicola *see* Sijmons, Peter C.
Meyer, Bernd *see* Levy, Samuel
Mohnen, Debra *see* Marfà, Victòria
Moneger, F. *see* Laver, H.K.
Murelli, Carla *see* Bianci, Giorgio

Nacken, W. *see* Pnueli, L.
Nagata, Toshiyuki *see* Takahashi, Yohsuke
Nagatani, Akira *see* Kendrick, Richard E.
Nussaume, Laurent, Vincentz, Michel and Caboche, Michel *Constitutive nitrate reductase: a dominant conditional marker for plant genetics* 267

O'Neill, Malcolm *see* Mathieu, Yves

Palme, Klaus *see* Barbier-Brygoo, Hélène
Peart, J. *see* Knox, J.P.
Pnueli, L., Abu-Abeid, M., Zamir, D., Nacken, W., Schwarz-Sommer, Zs. and Lifschitz, E. *The MADS box gene family in tomato: temporal expression during floral development, conserved secondary structures and homology with homeotic genes from* Antirrhinum *and* Arabidopsis 255
Potrykus, Ingo *see* Aeschbacher, Roger A.
Prescott, Andy *see* Martin, Cathie
Pwee, Keng-Hock *see* Dupree, Paul

Quick, W.P., Schurr, U., Fichtner, K., Schulze, E.-D., Rodermel, S.R., Bogorad, L. and Stitt, M. *The impact of decreased Rubisco on photosynthesis, growth, allocation and storage in tobacco plants which have been transformed with antisense rbcS* 51

Reynolds, S.J. *see* Laver, H.K.
Roberts, K. *see* Knox, J.P.
Rodermel, S.R. *see* Quick, W.P.

Salamini, Francesco *see* Bianci, Giorgio
Saul, Michael W. *see* Aeschbacher, Roger A.
von Schaewen, Antje *see* Sonnewald, Uwe
Scheel, Dierk *see* Lozoya, Edmundo
Schell, Jeff *see* Barbier-Brygoo, Hélène
Schell, Jeff *see* Walden, Richard
Schmidt, Renate *see* Hwang, Inhwan
Schrott, Martin *see* Aeschbacher, Roger A.
Schulze, E.-D. *see* Quick, W.P.
Schurr, U. *see* Quick, W.P.
Schwarz-Sommer, Zs. *see* Pnueli, L.
Sheng, Jinsong, D'Ovidio, Renato and Mehdy, Mona C. *Negative and positive regulation of a novel proline-rich protein mRNA by fungal elicitor and wounding* 345
Sijmons, Peter C., Grundler, Florian M.W., von Mende, Nicola, Burrows, Paul R. and Wyss, Urs Arabidopsis thaliana *as a new model host for plant-parasitic nematodes* 245
Smalle, J. *see* Claes, B.
Soll, Jurgen *see* Waegemann, Karin
Somerville, Chris *see* Hwang, Inhwan
Song, Yan-Ru *see* Ye, Zheng-Hua
Sonnewald, Uwe, Brauer, Monika, von Schaewen, Antje, Stitt, Mark and Willmitzer, Lothar *Transgenic tobacco plants expressing yeast-derived invertase in either the cytosol, vacuole or apoplast: a powerful tool for studying sucrose metabolism and sink/source interactions* 95
Spiro, Mark D. *see* Mathieu, Yves
Staehelin, L. Andrew *see* Levy, Samuel
Stitt, M. *see* Quick, W.P.
Stitt, Mark *see* Sonnewald, Uwe
Stuike-Prill, Rainer *see* Levy, Samuel
Sussman, Michael R. *see* DeWitt, Natalie D.

Takahashi, Yohsuke, Kusaba, Makoto, Hiraoka, Yoshiki and Nagata, Toshiyuki *Characterization of the auxin-regulated* par *gene from tobacco mesophyll protoplasts* 327
Terryn, N. *see* Anuntalabhochai, S.
Truchet, Georges *see* de Billy, Françoise

Van Montagu, M. *see* Anuntalabhochai, S.
Van Montagu, M. *see* Claes, B.
Varner, Joseph E. *see* Ye, Zheng-Hua
Vincentz, Michel *see* Faure, Jean-Denis
Vincentz, Michel *see* Nussaume, Laurent
Vrijlandt, Eli *see* Martin, Cathie

Waegemann, Karin and Soll, Jurgen *Characterization of the protein import apparatus in isolated outer envelopes of chloroplasts* 149
Walden, Richard, Hayashi, Hiroaki and Schell, Jeff *T-DNA as a gene tag* 281
Walker, Elsbeth L. *see* Brears, Timothy
Willmitzer, Lothar *see* Sonnewald, Uwe
Wyss, Urs *see* Sijmons, Peter C.

Xia, Hua *see* Mathieu, Yves

Ye, Zheng-Hua, Song, Yan-Ru, Marcus, Abraham and Varner, Joseph E. *Comparative localization of three classes of cell wall proteins* 175
York, William S. *see* Levy, Samuel

Zamir, D. *see* Pnueli, L.

Subject index

abscisic acid 327
amino acid biosynthesis 275
anthocyanin biosynthesis 37
antibodies 83, 149, 317
Antirrhinum 37, 59, 255
antisense technology 51
aphidicolin 141
apoplast 95
Arabidopsis 71, 121, 133, 159, 167, 245, 255, 289, 303, 367
arabinogalactan proteins 317
ATPase 185
auxin 83, 327
avirulence genes 289

calcium 333
carbohydrate metabolism 355
Catharanthus 141
cell cycle 129, 141
cell lineage 3
cell wall 175, 195, 217, 317, 333, 345
cell wall fragments 217, 333
cellulose 195
chaperone 9
chloroplast 9, 115, 149
chromosome 159
circadian rhythm 107
cytokinin 327
cytoplasmic male sterility 185

defence response 333, 345
desiccation 355
development 217, 333
DNA-binding protein 255, 303

electrophysiology 83
elicitors 227, 333, 345
endocytosis 167
epidermis 115, 317
extracellular matrix 317

floral development 37, 217, 255

gene regulation 15, 27, 37, 107, 141, 167, 175, 185, 227, 255
gene tagging 59, 71, 281
gene-for-gene 289
genetic map 367
glutamine synthetase 235
Glycine 175
glycine-rich proteins 175
glycolate oxidase 361
glycoprotein 317
GTP-binding protein 167

H^+-ATPase 121
heat shock 149, 327
Helianthus 185
histones 141
homeotic genes 255
hybrid genes 361
hydroxyproline-rich proteins 175

in-situ hybridization 27, 159
invertase 95

leaf mesophyll 327
leghaemoglobin 27
Lycopersicon 133, 255

Medicago 27, 235
membrane potential 333
membrane traffic 9, 167, 361
membrane transport 149
meristem 3
mitochondria 185
mitosis 129
molecular cloning 303, 327, 345, 361

Nicotiana 83, 217, 327
Nicotiana plumbaginifolia mutants 107
nitrate metabolism 107, 267
nitrogen assimilation 275
nuclear structure 159

octulose 355
Oryza 15

parasitic nematodes 245
pattern development 3
pattern formation 317
peroxisomes 361
Petroselinum 227
Phaseolus 345
phenylpropanoid metabolism 227
phloem 121
phosphorylation 129
photomorphogenesis 133
photosynthesis 51, 95, 115
phytochrome 133
plant–pathogen interactions 227, 245, 289, 345
plasma membrane 83, 121, 333
polysaccharides 195
proline-rich proteins 345
promoter activity 115, 121, 227, 235
protein targeting 9, 45, 149, 361
proton pump 121
protoplast 327
Pseudomonas 289

resistance genes 289
RFLP markers 367
Rhizobium 27
roots 175, 245, 317
Rubisco 51

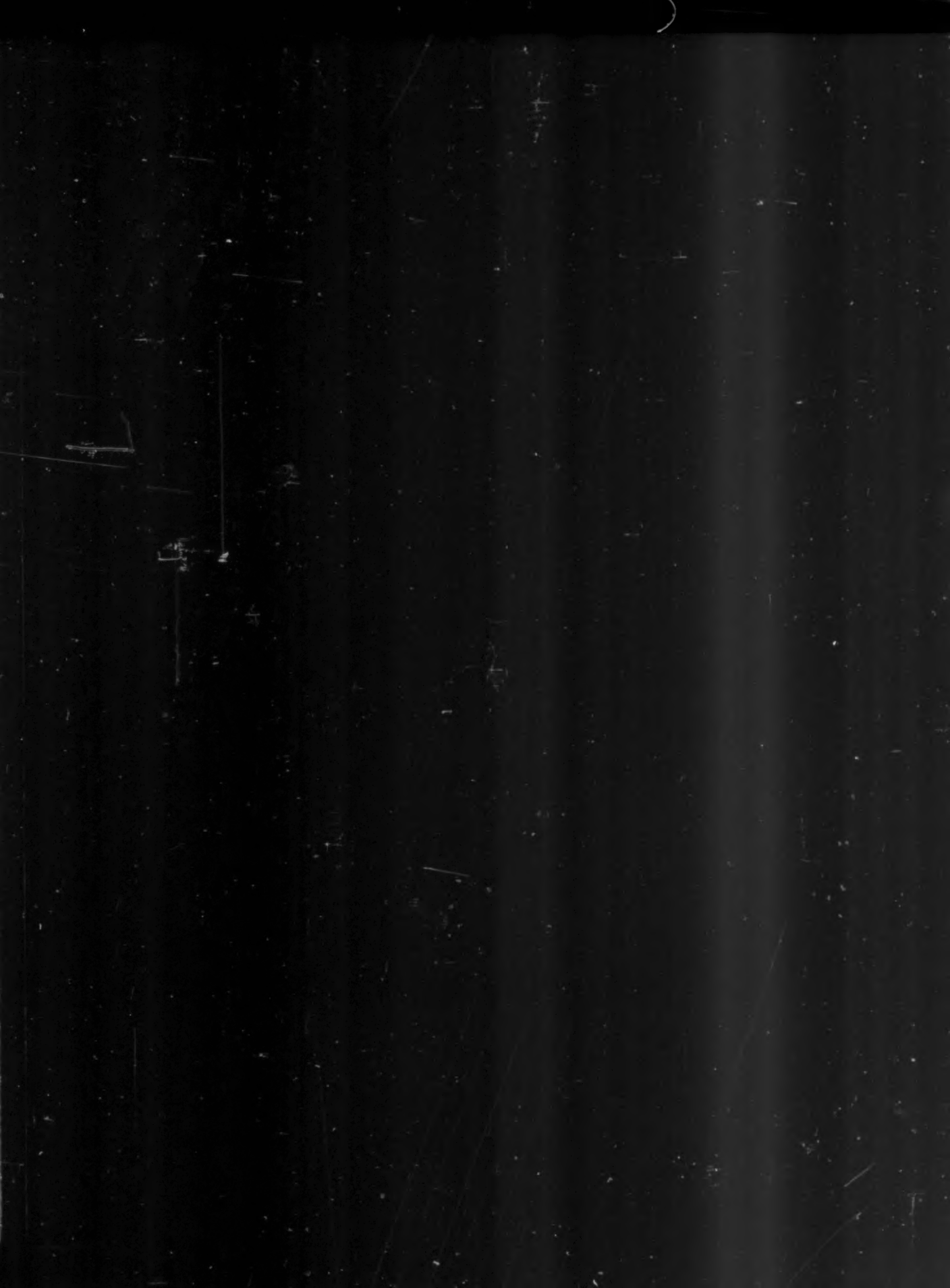
signalling 133, 167, 333
source–sink relations 95
stress 327, 345, 355
sucrose 355

T-DNA 71, 281
targeting signal 361
tissue culture 217

tissue-print hybridization 175
transcription factors 15, 303
transgenic tobacco 15, 51, 95, 115, 235, 267, 303, 361
transposable elements 281
transposon mutagenesis 59

vacuole 95

wounding 345

xylem 317
xyloglucan 195

Zea 3, 83